

DIFFRACTIVE OPTICAL ELEMENT AND METHOD OF MAKING
SAME

ABSTRACT OF THE DISCLOSURE

A diffraction element can be used in a system employing very short wavelengths of light, for example light in the nanometer range (e.g., about 100 nm to about 300 nm). The diffraction element is formed using a substrate (or any optical element) having high transmission characteristics in this wavelength range. For example, calcium fluoride or barium fluoride can be used. A layer of amorphous isotropic material, such as silicon dioxide or silica, is deposited on the substrate and patterned to allow for diffraction.

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